

## HAZARD MITIGATION IN MEDICAL DEVICE

### ABSTRACT

Delivery of energy by a defibrillator or other medical device is inhibited when the processor or software that controls a module of the medical device operates abnormally. A windowed watchdog timer (WWDT) incorporated into one module of the medical device is used to control the operation of other modules of the medical device via a software-based extension technique. As a result, the risk of harm to the patient is reduced compared to medical devices that incorporate over-limit type watchdog timers. In addition, costs associated with implementing WWDTs in multiple modules of the defibrillator are avoided, thereby lowering the overall cost of implementation.